

REMARKS

In the Advisory Action, the Examiner notes that Claims currently pending do not recite binding of particles in particulate form to the binder containing cellulose fiber "using a binder." The Applicants thank the Examiner for his time in clarifying this issue during the telephone conference on February 9, 2005.

In response thereto, Applicants have amended independent Claim 55 to recite that the binder is used to bind the superabsorbent particles in particulate form to the binder containing cellulose fiber. Thus, Claim 55 and the balance of the claims which depend from Claim 55 recite that the binder is used to bind the superabsorbent particles in particulate form to the binder containing cellulose fiber. Support for the amendment to Claim 55 regarding using the binder to bind the particles to fibers exists in the specification at page 11, lines 9 and 10.

In view of this amendment, Applicants assert that the subject matter of Claim 55 and the claims dependent therefrom is novel and nonobvious over Chen et al. Chen et al. does not teach a method of binding superabsorbent particles to cellulose fibers that uses a binder to bind the superabsorbent particles in particulate form to a binder containing cellulose fiber, wherein the binder has functional groups selected from those recited in independent Claims 55.

Chen et al. does not inherently disclose the use of a binder as recited in amended Claim 55 to bind superabsorbent particles to a binder containing cellulose fiber for the following reasons.

Under the law of inherency, the fact that a certain result or characteristic may occur or be present in the prior art is not sufficient to establish the inherency of that result or characteristic. *In re Rijckaert*, 28 U.S.P.Q.2d 1955, 1957 (Fed. Cir. 1993). As stated in *In re Oelrich*, 212 U.S.P.Q. 323, 326 (C.C.P.A. 1981) to establish inherency, the extrinsic evidence must make clear that the missing descriptive matter is necessarily present in the thing described in the

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reference, and that it would be so recognized by persons of ordinary skill. Inherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient. In relying upon the theory of inherency, the Examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied prior art. *Ex parte Levy*, 17 U.S.P.Q.2d 1461 (PTO Bd. Pat. Int. 1990).

The rejection set forth in the final rejection does not establish a *prime face* case of inherency of the subject matter of Claim 55 as amended because Chen et al. does not inherently disclose the use of a binder having the recited functionality to bind superabsorbent particles in particulate form to a binder containing cellulose fiber.

Chen et al. describes a fibrous web of cellulosic material that includes a first complex forming material and a second complex forming material. According to Chen et al., when wetted, the first and second complex forming materials form a complex resulting in the fibrous web having improved integrity. One of the objects of Chen et al., as described at Col. 2, line 4, is to provide a fibrous web that possesses a high degree of wet and dry structural integrity while maintaining its absorbency and suppleness in both the dry and wet state. Chen et al., at Col. 4, lines 19-32, lists polymeric materials suitable for the first complex forming material. In the next paragraph, at lines 33-46 of Col. 4, polymeric materials useful as a second complex forming material are described. Chen et al. beginning at Col. 4, line 52, describes the "other suitable materials" which the Examiner's Action equates with the binders of the present invention. The list of other suitable materials include polyvinyl alcohol, glycerin, sorbitol, polyethylene glycol, propylene glycol, and lower molecular weight polyethylene oxide.

In accordance with Chen et al., in addition to these "other materials," the fibrous web also contains at least the first and second complexing material. At least some of the polymeric

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materials described as being useful as the first and second complex forming materials include hydrogen bonding functionality. It is unclear from Chen et al. what effect the two complex forming materials have on any interaction between the fibers, particles, and "other materials" which the Examiner's Action equates with the binders of the presently claimed invention. In view of the presence of these two complex forming materials, it is not reasonable to conclude that the claimed binding step necessarily flows from the teachings of Chen et al. when considered in their entirety. The possibility that the "other materials" may result in binding of particles to binder treated fibers in Chen et al. is not sufficient to establish the inherency of the claimed invention which recites that the claimed binder is used to bind superabsorbent particles in particulate form to a binder containing cellulose fiber. For these reasons, using the binder recited in Claim 55 to bind superabsorbent particles in particulate form to binder containing cellulose fibers is not a step that is inherently disclosed in Chen et al. Accordingly, the subject matter of independent Claim 55, and the claims dependent therefrom, is novel over Chen et al.

The use of the recited binders to bind superabsorbent particles in particulate form to a binder containing cellulose fiber is not obvious in view of Chen et al. because Chen et al. does not suggest using a binder as recited in Claim 55 to bind superabsorbent particles to binder containing cellulose fibers. In fact, Chen et al., at Col. 10, lines 22-47, teaches away from the use of a binder having the recited functional groups to bind particles to fibers by teaching that particles can be entrapped or encaged within fibrous webs, that particles can be physically adhered to the fibrous webs when the complex forming material is a polymeric thermoplastic material, or particles can be adhered to the fibrous web using a tacky binder. Chen et al. does not suggest that particles can be bound to the cellulose fibers using the "other materials" (i.e. the compounds the Examiner's Action asserts are the same as the binder of the rejected claims) of

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Chen et al. Accordingly, the subject matter of independent Claim 55, as amended above, and the claims dependent therefrom, is nonobvious over Chen et al.

Applicants assert that Claims 62, 65, 71-75, 78, and 79, which each depend from Claim 55, are novel and nonobvious for the reasons given above and also for the reasons given below.

Claim 62 recites that the binder is a nonpolymeric diol. Chen et al. does not disclose or suggest a binder that is a nonpolymeric diol as recited in Claim 62. The Examiner's Action asserts that the use of nonpolymeric diols as binders in a method for binding particles to fibers is taught by Chen et al. at Col. 4, lines 50-60 and Col. 1, lines 30-45. Col. 4, lines 50-60 of Chen et al. disclose the polymeric alcohol polyvinyl alcohol, and the polymeric glycols polyethylene glycol and polypropylene glycol. These materials are not nonpolymeric diols. The same passage of Chen et al. also describes the triol glycerin and the hexol sorbitol. Again, these materials are not diols and do not anticipate or render obvious the nonpolymeric diols recited in Claim 62. Similarly, Col. 1, lines 30-45 cited in the Final Rejection does not disclose a nonpolymeric diol binder.

Dependent Claim 65 recites that the binder is propylene glycol. Chen et al. does not disclose propylene glycol which is a nonpolymeric diol, nor does it suggest using propylene glycol as a binder to bind particles to fibers.

Claims 71-75 recite specific nonpolymeric glycols as binders. Chen et al. does not disclose or suggest the specific nonpolymeric glycols recited in Claims 71-75.

Claim 78 recites the binder is a hydroxy acid. Chen et al. does not disclose a method that uses a binder in the form of a hydroxy acid to bind particles to fibers. The Examiner's Action asserts that the use of hydroxy acid to bind particles to fibers is inherently disclosed by the description of alcohol, glycerin, and glycol at Col. 4, lines 50-60. Hydroxy acids include both

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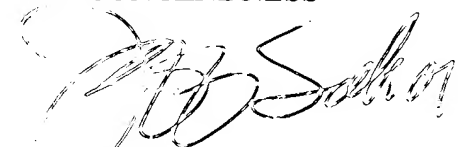
hydroxyl functionalities and carboxyl functionalities. The disclosure of alcohol, glycerin, and glycol, which each include hydroxyl groups but do not include carboxyl groups, does not inherently anticipate hydroxy acids.

Claim 79 recites that the hydroxy acid is lactic acid. Chen et al. does not disclose or suggest a method that uses lactic acid as a binder for binding particles to fibers. Lactic acid is a hydroxy acid so the arguments presented in the previous paragraph are equally applicable to Claim 79.

For the foregoing reasons, the pending claims as amended are novel and nonobvious over Chen et al. Accordingly, applicants respectfully request allowance of the application. If the reviewing party has any questions regarding the above, he is invited to call applicants' attorney at the number listed below.

Respectfully submitted,

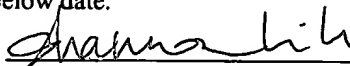
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